

CLAIMS

What is claimed is:

1. A memory for storing data for access by an application program being executed on a computer system, comprising:
  - a data structure stored in said memory, the data structure including or referring to:
    - a name;
    - a content repository identifier;
    - a property;
    - a property definition; and
  - wherein the data structure is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.
2. The memory of claim 1 wherein the content repository identifier comprises:
  - a repository name; and
  - a content identifier that is unique for the content repository.
3. The memory of claim 1, further comprising:
  - a reference to a parent data structure.
4. The memory of claim 1 wherein:
  - a property is an association between a name and at least one value; and
  - wherein the at least one value can be stored in one of the at least one content repositories.
5. The memory of claim 4 wherein:
  - the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.
6. The memory of claim 1 wherein:
  - the property definition can specify at least one of the following for the property:
    - property choices;

- a reference;
- a data type;
- whether the property is mandatory;
- whether the property is multi-valued;
- whether the property is primary;
- whether the property is read-only; and
- whether the property is restricted.

7. The memory of claim 1 wherein:  
the data structure is hierarchically related to other data structures and the at least one content repository.
8. The memory of claim 7 wherein:  
the data structure is hierarchically inferior to the at least one content repository.
9. A computer readable medium containing a data structure for representing information in a virtual content repository (VCR), said data structure comprising:
  - a name;
  - a content repository identifier;
  - a property;
  - a property definition associated with the property; and
 wherein the data structure is logically part of the VCR, and wherein the VCR represents at least one content repository.
10. The computer readable medium of claim 9 wherein the content repository identifier comprises:
  - a repository name; and
  - a content identifier that is unique for the content repository.
11. The computer readable medium of claim 9, further comprising:  
a reference to a parent data structure.
12. The computer readable medium of claim 9 wherein:

a property is an association between a name and at least one value; and  
 wherein the at least one value can be stored in one of the at least one content  
 repositories.

13. The computer readable medium of claim 12 wherein:

the at least one value can be a text string, a number, an image, an  
 audio/visual presentation, or binary data.

14. The computer readable medium of claim 9 wherein:

the property definition can specify at least one of the following for a  
 property:

property choices;

a reference;

a data type;

whether the property is mandatory;

whether the property is multi-valued;

whether the property is primary;

whether the property is read-only; and

whether the property is restricted.

15. The computer readable medium of claim 9 wherein:

the data structure is hierarchically related to other data structures and the at  
 least one content repository.

16. The computer readable medium of claim 15 wherein:

the data structure is hierarchically inferior to the at least one content  
 repository.

17. A computer data signal embodied in a transmission medium, comprising:

a segment including a name;

a segment including a content repository identifier;

a segment including a property;

a segment including a property definition; and

wherein the segments can be combined to form a data structure that is

logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.

18. The data signal of claim 17 wherein the content repository identifier comprises:

- a repository name; and
- a content identifier that is unique for the content repository.

19. The data signal of claim 17, further comprising:

- a segment including a reference to a parent data structure.

20. The data signal of claim 17 wherein:

- a property is an association between a name and at least one value; and
- wherein the at least one value can be stored in one of the at least one content repositories.

21. The data signal of claim 20 wherein:

- the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.

22. The data signal of claim 17 wherein:

- the property definition can specify at least one of the following for the property:

- property choices;
- a reference;
- a data type;
- whether the property is mandatory;
- whether the property is multi-valued;
- whether the property is primary;
- whether the property is read-only; and
- whether the property is restricted.

23. The data signal of claim 17 wherein:

- the data structure is hierarchically related to other data structures and the at

least one content repository.

24. The data signal of claim 23 wherein:

the data structure is hierarchically inferior to the at least one content repository.

25. A memory for storing data for access by an application program being executed on a computer system, comprising:

a first object to provide a first group of services related to interacting with a hierarchical namespace;

a second object to provide a second group of services related to associating information with the first object;

a third object to provide a third group of services related to describing attributes of the second object;

wherein the first object is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.

26. The memory of claim 25 wherein the first group of services comprises:

first functions that enable associating the first object with a location in the namespace.

27. The memory of claim 25 wherein the second group of services comprises:

second functions that enable creating, reading, updating and deleting the information.

28. The memory of claim 25 wherein the third group of services comprises:

third functions that enable specifying at least one of the following for the second object:

information choices;

a reference;

an information type;

whether the information is mandatory;

whether the information is multi-valued;

whether the information is primary;

whether the information is read-only; and  
whether the information is restricted.

29. The memory of claim 25 further comprising:  
a fourth object to specify a location of the first object in the namespace.
30. The memory of claim 29 wherein the fourth object includes:  
a content repository name; and  
a content identifier that is unique for the content repository.
31. The memory of claim 25 wherein the first object includes:  
a reference to a parent object.
32. The memory of claim 25, further comprising:  
a fifth object to provide a fifth set of services related to searching the VCR;
33. The memory of claim 25 wherein:  
the second object associates a name and at least one value; and  
wherein the at least one value can be stored in one of the at least one content repository.
34. The memory of claim 33 wherein:  
the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.
35. The memory of claim 25 wherein:  
the first object is hierarchically related to other objects and the at least one content repository.
36. The memory of claim 25 wherein:  
there is no second object.
37. The memory of claim 25, further comprising:  
a sixth object to provide a sixth group of services related to configuring the

VCR.

38. A computer data signal embodied in a transmission medium, comprising:  
 a segment including a first object to provide a first group of services related to interacting with a hierarchical namespace;  
 a segment including a second object to provide a second group of services related to associating information with the first object;  
 a segment including a third object to provide a third group of services related to describing attributes of the second object;  
 wherein the first object is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.

39. The computer data signal 38 wherein the first group of services comprises:  
 first functions that enable associating the first object with a location in the namespace.

40. The computer data signal 38 wherein the second group of services comprises:  
 second functions that enable creating, reading, updating and deleting the information.

41. The computer data signal 38 wherein the third group of services comprises:  
 third functions that enable specifying at least one of the following for the second object:

- information choices;
- a reference;
- an information type;
- whether the information is mandatory;
- whether the information is multi-valued;
- whether the information is primary;
- whether the information is read-only; and
- whether the information is restricted.

42. The computer data signal 38 further comprising:

a segment including a fourth object to specify a location of the first object in the namespace.

43. The computer data signal 42 wherein the fourth object includes:  
a content repository name; and  
a content identifier that is unique for the content repository.
44. The computer data signal 38 wherein the first object includes:  
a reference to a parent object.
45. The computer data signal 38, further comprising:  
a fifth object to provide a fifth set of services related to searching the VCR;
46. The computer data signal 38 wherein:  
the second object associates a name and at least one value; and  
wherein the at least one value can be stored in one of the at least one content repository.
47. The computer data signal 46 wherein:  
the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.
48. The computer data signal 38 wherein:  
the first object is hierarchically related to other objects and the at least one content repository.
49. The computer data signal 38 wherein:  
there is no second object.
50. The computer data signal 38, further comprising:  
a sixth object to provide a sixth group of services related to configuring the VCR.